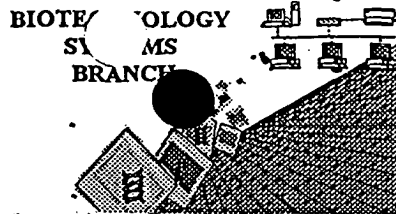# RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _10/070,387_

Source: _PCT/JB_

Date Processed by STIC: _3-21-2002_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
           Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

Raw Sequence Listing Error Summary .

| ERROR DETECTED | SUGGESTED CORRECTION | SERIAL NUMBER: _10/070, 38.7_ |

1 ____ Wrapped Nucleics
Wrapped Aminos·
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 ____ Invalid Line Length
The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino Numbering
The numbering under each 5ᵗʰ amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 ____ Non-ASCII
The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 ____ Variable Length
Sequence(s) ____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 ____ PatentIn 2.0 "bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 ____ Skipped Sequences (OLD RULES)
Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 ____ Skipped Sequences (NEW RULES)
Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 ✓ Use of n's or Xaa's (NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ____ Invalid <213> Response
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 ____ Use of <220>
Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 ____ PatentIn 2.0 "bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

AMC – Biotechnology Systems Branch – 06/04/2001

```
        RAW SEQUENCE LISTING              DATE: 03/21/2002
        PATENT APPLICATION:  US/10/070,387    TIME: 14:51:31

        Input Set : A:\EP.txt
        Output Set: N:\CRF3\03212002\J070387.raw
```

```
   3 <110> APPLICANT: Meiji Seika Kaisha, Ltd.
   5 <120> TITLE OF INVENTION: Cyclic depsipeptide synthetase and its gene and mass
)duction system of
   6         cyclic
   7         depsipeptide
   9 <130> FILE REFERENCE: 127184
>  11 <140> CURRENT APPLICATION NUMBER: US/10/070,387
>  11 <141> CURRENT FILING DATE: 2002-03-06
   11 <150> PRIOR APPLICATION NUMBER: JP 253040/1999
   12 <151> PRIOR FILING DATE: 1999-09-07
   14 <150> PRIOR APPLICATION NUMBER: JP 104291/2000
   15 <151> PRIOR FILING DATE: 2000-04-06
   17 <160> NUMBER OF SEQ ID NOS: 21
   19 <170> SOFTWARE: PatentIn Ver. 2.1
```

Does Not Comply
Corrected Diskette Needed
See Additional Page 1

ORED SEQUENCES

```
 868 <210> SEQ ID NO: 2
 869 <211> LENGTH: 3210
 870 <212> TYPE: PRT
 871 <213> ORGANISM: Mycelia sterilia
 873 <400> SEQUENCE: 2
 874 Met Ser Asn Met Ala Pro Leu Pro Thr Met Gly Val Glu Gln Gln Ala
 875   1               5              10              15
 877 Leu Ser Leu Ser Cys Pro Leu Leu Pro His Asp Asp Glu Lys His Ser
 878              20              25              30
 880 Asp Asn Leu Tyr Glu Gln Ala Thr Arg His Phe Gly Leu Ser Arg Asp
 881           35              40              45
 883 Lys Ile Glu Asn Val Leu Pro Cys Thr Ser Phe Gln Cys Asp Val Ile
 884        50              55              60
 886 Asp Cys Ala Val Asp Asp Arg Arg His Ala Ile Gly His Val Val Tyr
 887  65              70              75              80
 889 Asp Ile Pro Asn Thr Val Asp Ile Gln Arg Leu Ala Ala Ala Trp Lys
 890              85              90              95
 892 Glu Val Val Arg Gln Thr Pro Ile Leu Arg Thr Gly Ile Phe Thr Ser
 893              100             105             110
 895 Glu Thr Gly Asp Ser Phe Gln Ile Val Leu Lys Glu Gly Cys Leu Pro
 896              115             120             125
 898 Trp Met Tyr Ala Thr Cys Leu Gly Met Lys Gly Ala Val Ile Gln Asp
 899        130             135             140
 901 Glu Ala Val Ala Ala Met Thr Gly Pro Arg Cys Asn Arg Tyr Val Val
 902 145             150             155             160
 904 Leu Glu Asp Pro Ser Thr Lys Gln Arg Leu Leu Ile Trp Thr Phe Ser
```

Input Set : A:\EP.txt
Output Set: N:\CRF3\03212002\J070387.raw

```
905                  165              170                  175
907 His Ala Leu Val Asp Tyr Thr Val Gln Glu Arg Ile Leu Gln Arg Val
908              180              185                  190
910 Leu Thr Val Tyr Asp Gly Arg Asp Val Glu Cys Pro Arg Ile Lys Asp
911          195              200                  205
913 Thr Glu His Val Ser Arg Phe Trp Gln Gln His Phe Glu Gly Leu Asp
914      210              215                  220
916 Ala Ser Val Phe Pro Leu Leu Pro Ser His Leu Thr Val Cys Asn Pro
917 225              230                  235                  240
919 Asn Ala Arg Ala Glu His His Ile Ser Tyr Thr Gly Pro Val Gln Arg
920              245                  250                  255
922 Lys Trp Ser His Thr Ser Ile Cys Arg Ala Ala Leu Ala Val Leu Leu
923              260                  265                  270
925 Ser Arg Phe Thr His Ser Ser Glu Ala Leu Phe Gly Val Val Thr Glu
926          275                  280                  285
928 Gln Ser His Asn Ser Glu Asp Gln Arg Arg Ser Ile Asp Gly Pro Ala
929      290                  295                  300
931 Arg Thr Val Val Pro Ile Arg Val Leu Cys Ala Pro Asp Gln Tyr Val
932 305                  310                  315                  320
934 Ser Asp Val Ile Gly Ala Ile Thr Ala His Glu His Ala Met Arg Gly
935                  325                  330                  335
937 Phe Glu His Ala Gly Leu Arg Asn Ile Arg Arg Thr Gly Asp Asp Gly
938              340                  345                  350
940 Ser Ala Ala Cys Gly Phe Gln Thr Val Leu Leu Val Thr Asp Gly Asp
941          355                  360                  365
943 Ala Pro Lys Thr Pro Gly Ser Val Leu His Arg Ser Val Glu Glu Ser
944      370                  375                  380
946 Asp Arg Phe Met Pro Cys Ala Asn Arg Ala Leu Leu Leu Asp Cys Gln
947 385                  390                  395                  400
949 Met Ala Gly Asn Ser Ala Ser Leu Val Ala Arg Tyr Asp His Asn Val
950              405                  410                  415
952 Ile Asp Pro Arg Gln Met Ser Arg Phe Leu Arg Gln Leu Gly Tyr Leu
953          420                  425                  430
955 Ile Gln Gln Phe His His His Val Asp Leu Pro Leu Val Lys Glu Leu
956      435                  440                  445
959 Asp Val Val Thr Ala Glu Asp Cys Ala Glu Ile Glu Lys Trp Asn Ser
960      450              455                  460
962 Glu Arg Leu Thr Met Gln Asp Ala Leu Ile His Asp Thr Ile Ser Lys
963 465              470                  475                  480
965 Trp Ala Ala Gly Asp Pro Asn Lys Ala Ala Val Phe Ala Trp Asp Gly
966              485                  490                  495
968 Glu Trp Thr Tyr Ala Glu Leu Asp Asn Ile Ser Ser Arg Leu Ala Val
969          500                  505                  510
971 Tyr Ile Gln Ser Leu Asp Leu Arg Pro Gly Gln Ala Ile Leu Pro Leu
972          515                  520                  525
974 Cys Phe Glu Lys Ser Lys Trp Val Val Ala Thr Ile Leu Ala Val Leu
975 530              535                  540
977 Lys Val Gly Arg Ala Phe Thr Leu Ile Asp Pro Cys Asp Pro Ser Ala
978 545              550                  555                  560
```

Input Set : A:\EP.txt
Output Set: N:\CRF3\03212002\J070387.raw

```
 980 Arg Met Ala Gln Val Cys Gln Gln Thr Ser Ala Thr Val Ala Leu Thr
 981                 565             570             575
 983 Ser Lys Leu His Asn Thr Thr Leu Arg Ser Val Val Ser Arg Cys Ile
 984             580             585             590
 986 Val Val Asp Asp Asp Leu Leu Arg Ser Leu Pro His Ala Asp Gly Arg
 987         595             600             605
 989 Leu Lys Ala Thr Val Lys Pro Gln Asp Leu Ala Tyr Val Ile Phe Thr
 990     610             615             620
 992 Ser Gly Ser Thr Gly Glu Pro Lys Gly Ile Met Ile Glu His Arg Gly
 993 625             630             635             640
 995 Phe Val Ser Cys Ala Met Lys Phe Gly Pro Ala Leu Gly Met Asp Glu
 996             645             650             655
 998 His Thr Arg Ala Leu Gln Phe Ala Ser Tyr Ala Phe Gly Ala Cys Leu
 999             660             665             670
1001 Val Glu Val Val Thr Ala Leu Met His Gly Gly Cys Val Cys Ile Pro
1002         675             680             685
1004 Ser Asp Asp Asp Arg Leu Asn Asn Val Pro Glu Phe Ile Lys Arg Ala
1005     690             695             700
1007 Gln Val Asn Trp Val Ile Leu Thr Pro Ser Tyr Ile Gly Thr Phe Gln
1008 705             710             715             720
1010 Pro Glu Asp Val Pro Gly Leu Gln Thr Leu Val Leu Val Gly Glu Pro
1011             725             730             735
1013 Ile Ser Ala Ser Ile Arg Asp Thr Trp Ala Ser Gln Val Arg Leu Leu
1014             740             745             750
1017 Asn Ala Tyr Gly Gln Ser Glu Ser Ser Thr Met Cys Ser Val Thr Glu
1018         755             760             765
1020 Val Ser Pro Leu Ser Leu Glu Pro Asn Asn Ile Gly Arg Ala Val Gly
1021     770             775             780
1023 Ala Arg Ser Trp Ile Ile Asp Pro Asp Glu Pro Asp Arg Leu Ala Pro
1024 785             790             795             800
1026 Ile Gly Cys Ile Gly Glu Leu Val Ile Glu Ser Pro Gly Ile Ala Arg
1027             805             810             815
1029 Asp Tyr Ile Ile Ala Pro Pro Pro Asp Lys Ser Pro Phe Leu Leu Ala
1030         820             825             830
1032 Pro Pro Ala Trp Tyr Pro Ala Gly Lys Leu Ser Asn Ala Phe Lys Phe
1033         835             840             845
1035 Tyr Lys Thr Gly Asp Leu Val Arg Tyr Gly Pro Asp Gly Thr Ile Val
1036     850             855             860
1038 Cys Leu Gly Arg Lys Asp Ser Gln Val Lys Ile Arg Gly Gln Arg Val
1039 865             870             875             880
1041 Glu Ile Ser Ala Val Glu Ala Ser Leu Arg Arg Gln Leu Pro Ser Asp
1042             885             890             895
1044 Ile Met Pro Val Ala Glu Ala Ile Lys Arg Ser Asp Ser Ser Gly Ser
1045         900             905             910
1048 Thr Val Leu Thr Ala Phe Leu Ile Gly Ser Ser Lys Ser Gly Asp Gly
1049     915             920             925
1051 Asn Gly His Ala Leu Ser Ala Ala Asp Ala Val Ile Leu Asp His Gly
1052     930             935             940
1054 Ala Thr Asn Glu Ile Asn Ala Lys Leu Gln Gln Ile Leu Pro Gln His
```

Input Set : **A:\EP.txt**
Output Set: **N:\CRF3\03212002\J070387.raw**

```
1055 945                    950                   955                    960
1057 Ser Val Pro Ser Tyr Tyr Ile His Met Glu Asn Leu Pro Arg Thr Ala
1058               965                   970                   975
1060 Thr Gly Lys Ala Asp Arg Lys Met Leu Arg Ser Ile Ala Ser Lys Leu
1061            980                   985                   990
1063 Leu Gly Glu Leu Ser Gln Asn Val Thr Ser Gln Pro Ile Glu Lys His
1064          995                  1000                  1005
1066 Asp Ala Pro Ala Thr Gly Ile Glu Val Lys Leu Lys Glu Leu Trp Phe
1067    1010                  1015                  1020
1069 Leu Ser Leu Asn Leu Asn Pro Asn Ser Gln Asp Val Gly Ala Ser Phe
1070 025                   1030                  1035                  1040
1072 Phe Asp Leu Gly Gly Asn Ser Ile Ile Ala Ile Lys Met Val Asn Met
1073            1045                  1050                  1055
1075 Ala Arg Ser Ala Gly Ile Ala Leu Lys Val Ser Asp Ile Phe Gln Asn
1076            1060                  1065                  1070
1078 Pro Thr Leu Ala Gly Leu Val Asp Val Ile Gly Arg Asp Pro Ala Pro
1079       1075                  1080                  1085
1081 Tyr Asn Leu Ile Pro Thr Thr Ala Tyr Ser Gly Pro Val Glu Gln Ser
1082    1090                  1095                  1100
1084 Phe Ala Gln Gly Arg Leu Trp Phe Leu Asp Gln Ile Glu Leu Asp Ala
1085 105                   1110                  1115                  1120
1087 Leu Trp Tyr Leu Leu Pro Tyr Ala Val Arg Met Arg Gly Pro Leu His
1088            1125                  1130                  1135
1090 Ile Asp Ala Leu Thr Ile Ala Leu Leu Ala Ile Gln Gln Arg His Glu
1091            1140                  1145                  1150
1093 Thr Leu Arg Thr Thr Phe Glu Glu Gln Asp Gly Val Gly Val Gln Val
1094       1155                  1160                  1165
1096 Val His Ala Ser Pro Ile Ser Asp Leu Arg Ile Ile Asp Val Ser Gly
1097    1170                  1175                  1180
1099 Asp Arg Asn Ser Asp Tyr Leu Gln Leu Leu His Gln Glu Gln Thr Thr
1100 185                   1190                  1195                  1200
1102 Pro Phe Ile Leu Ala Cys Gln Ala Gly Trp Arg Val Ser Leu Ile Arg
1103            1205                  1210                  1215
1106 Leu Gly Glu Asp Asp His Ile Leu Ser Ile Val Met His His Ile Ile
1107            1220                  1225                  1230
1109 Ser Asp Gly Trp Ser Ile Asp Ile Leu Arg Arg Glu Leu Ser Asn Phe
1110       1235                  1240                  1245
1112 Tyr Ser Ala Ala Leu Arg Gly Ser Asp Pro Leu Ser Val Val Ser Pro
1113    1250                  1255                  1260
1115 Leu Pro Leu His Tyr Arg Asp Phe Ser Val Trp Gln Lys Gln Val Glu
1116 265                   1270                  1275                  1280
1118 Gln Glu Thr Glu His Glu Arg Gln Leu Glu Tyr Trp Val Lys Gln Leu
1119            1285                  1290                  1295
1121 Ala Asp Ser Ser Ala Ala Glu Phe Leu Thr Asp Phe Pro Arg Pro Asn
1122            1300                  1305                  1310
1124 Ile Leu Ser Gly Glu Ala Gly Ser Val Pro Val Thr Ile Glu Gly Glu
1125       1315                  1320                  1325
1127 Leu Tyr Glu Arg Leu Gln Glu Phe Cys Lys Val Glu Gln Met Thr Pro
1128    1330                  1335                  1340
```

Amino Acid numbers, > 999 on the left hand margin, must start on the left side of the amino acid 3 letter code and proceed in. The number may not overlap the next 3 letter amino acid code

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

Input Set : A:\EP.txt
Output Set: N:\CRF3\03212002\J070387.raw

```
1354         2515                   2520                    2525
1356 Ile Val Val Ile Asp Gln Met Pro Leu Asn Ala Asn Gly Lys Val Asp
1357      2530               2535                2540
1359 Arg Lys Glu Leu Thr Arg Arg Ala Gln Ile Ala Pro Lys Ser Gln Ala
1360  545                  2550                2555                2560
1362 Ala Pro Ala Lys Pro Val Lys Gln Val Asp Pro Phe Val Asn Leu Glu
1363               2565               2570                2575
1365 Ala Ile Leu Cys Glu Glu Phe Ala Glu Val Leu Gly Met Glu Val Gly
1366           2580               2585                2590
1368 Val Asn Asp His Phe Phe Gln Leu Gly Gly His Ser Leu Leu Ala Thr
1369      2595               2600                2605
1371 Lys Leu Val Ala Arg Leu Ser Arg Arg Leu Asn Gly Arg Val Ser Val
1372      2610               2615                2620
1374 Arg Asp Val Phe Asp Gln Pro Val Ile Ser Asp Leu Ala Val Thr Leu
1375  625                2630               2635                2640
1377 Arg Gln Gly Leu Thr Leu Glu Asn Ala Ile Pro Ala Thr Pro Asp Ser
1378           2645               2650                2655
1380 Gly Tyr Trp Glu Gln Thr Met Ser Ala Pro Thr Thr Pro Ser Asp Asp
1381           2660               2665                2670
1383 Met Glu Ala Val Leu Cys Lys Glu Phe Ala Asp Val Leu Gly Val Glu
1384      2675               2680                2685
1386 Val Ser Ala Thr Asp Ser Phe Phe Asp Leu Gly Gly His Ser Leu Met
1387   2690               2695                2700
1389 Ala Thr Lys Leu Ala Ala Arg Ile Ser Arg Arg Leu Asp Val Pro Val
1390  705                2710               2715                2720
1392 Ser Ile Lys Asp Ile Phe Asp His Ser Val Pro Leu Asn Leu Ala Arg
1393               2725               2730                2735
1396 Lys Ile Arg Leu Thr Gln Ala Lys Gly His Glu Ala Thr Asn Gly Val
1397           2740               2745                2750
1399 Gln Ile Ala Asn Asp Ala Pro Phe Gln Leu Ile Ser Val Glu Asp Pro
1400      2755               2760                2765
1402 Glu Ile Phe Val Gln Arg Glu Ile Ala Pro Gln Leu Gln Cys Ser Pro
1403   2770               2775                2780
1405 Glu Thr Ile Leu Asp Val Tyr Pro Ala Thr Gln Met Gln Arg Val Phe
1406  785                2790               2795                2800
1408 Leu Leu Asn Pro Val Thr Gly Lys Pro Arg Ser Pro Thr Pro Phe His
1409               2805               2810                2815
1411 Ile Asp Phe Pro Pro Asp Ala Asp Cys Ala Ser Leu Met Arg Ala Cys
1412           2820               2825                2830
1414 Ala Ser Leu Ala Lys His Phe Asp Ile Phe Arg Thr Val Phe Leu Glu
1415           2835               2840                2845
1417 Ala Arg Gly Glu Leu Tyr Gln Val Val Leu Lys His Val Asp Val Pro
1418      2850               2855                2860
1420 Ile Glu Met Leu Gln Thr Glu Glu Asn Ile Asn Ser Ala Thr Arg Ser
1421  865                2870               2875                2880
1423 Phe Leu Asp Val Asp Ala Glu Lys Pro Ile Arg Leu Gly Gln Pro Leu
1424               2885               2890                2895
1426 Ile Arg Ile Ala Ile Leu Glu Lys Pro Gly Ser Thr Leu Arg Val Ile
1427           2900               2905                2910
```

see page 4

3/21/02

Input Set : **A:\EP.txt**
Output Set: **N:\CRF3\03212002\J070387.raw**

```
1429 Leu Arg Leu Ser His Ala Leu Tyr Asp Gly Leu Ser Leu Glu His Ile
1430         2915              2920              2925
1432 Leu His Ser Leu His Ile Leu Phe Phe Gly Gly Ser Leu Pro Pro Pro
1433      2930              2935              2940
1435 Pro Lys Phe Ala Gly Tyr Met Gln His Val Ala Ser Ser Arg Arg Glu
1436 945              2950              2955              2960
1438 Gly Tyr Asp Phe Trp Arg Ser Val Leu Arg Asp Ser Ser Met Thr Val
1439         2965              2970              2975
1441 Ile Lys Gly Asn Asn Asn Thr Thr Pro Pro Pro Pro Pro Gln Gln Gln
1442         2980              2985              2990
1444 Ser Thr Pro Ser Gly Ala His His Ala Ser Lys Val Val Thr Ile Pro
1445         2995              3000              3005
1447 Thr Gln Ala Asn Thr Asp Ser Arg Ile Thr Arg Ala Thr Ile Phe Thr
1448     3010              3015              3020
1450 Thr Ala Cys Ala Leu Met Leu Ala Lys Glu Asp Asn Ser Ser Asp Val
1451 025              3030              3035              3040
1454 Val Phe Gly Arg Thr Val Ser Gly Arg Gln Gly Leu Pro Leu Ala His
1455              3045              3050              3055
1457 Gln Asn Val Ile Gly Pro Cys Leu Asn Gln Val Pro Val Arg Ala Arg
1458         3060              3065              3070
1460 Gly Leu Asn Arg Gly Thr Thr His His Arg Glu Leu Leu Arg Glu Met
1461         3075              3080              3085
1463 Gln Glu Gln Tyr Leu Asn Ser Leu Ala Phe Glu Thr Leu Gly Tyr Asp
1464     3090              3095              3100
1466 Glu Ile Lys Ala His Cys Thr Asp Trp Pro Asp Val Pro Ala Thr Ala
1467 105              3110              3115              3120
1469 Ser Phe Gly Cys Cys Ile Val Tyr Gln Asn Phe Asp Ser His Pro Asp
1470              3125              3130              3135
1472 Ser Arg Val Glu Glu Gln Arg Leu Gln Ile Gly Val Leu Ser Arg Asn
1473         3140              3145              3150
1475 Tyr Glu Ala Ile Asn Glu Gly Leu Val His Asp Leu Val Ile Ala Gly
1476         3155              3160              3165
1478 Glu Ser Glu Pro Asp Gly Asp Asp Leu Arg Val Thr Val Val Ala Asn
1479     3170              3175              3180
1481 Arg Arg Leu Cys Asp Glu Glu Arg Leu Lys Arg Met Leu Glu Glu Leu
1482 185              3190              3195              3200
1484 Cys Gly Asn Ile Arg Ala Leu Ala Leu Val
1485              3205              3210
```

see page 4

<210> 5
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer for cyclic depsipeptide
synthetase gene

<400> 5
tggacnwsna tgtaygaygg   20

<210> 6
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer for cyclic depsipeptide
synthetase gene

<400> 6
gtnggraart aytgnagnac   20

All 'n' must have feature with
numeric identifiers <220>-<223>.
See item #9 on error summary
sheet.

VERIFICATION ⬤ARY   DATE: 1/2002
PATENT APPLICATION: US/10/070,387   TIME: 14:51:33

Input Set : A:\EP.txt
Output Set: N:\CRF3\03212002\J070387.raw

11 M:270 C: Current Application Number differs, Replaced Current Application No
11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
38 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
42 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
46 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
50 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
54 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
58 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
62 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
66 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
70 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
74 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
78 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
82 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
86 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
91 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
95 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
99 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
103 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
107 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
111 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
115 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
120 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
124 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
128 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
132 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
136 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
140 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
144 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
149 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
153 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
157 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
161 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
165 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
169 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
173 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
178 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
182 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
186 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
190 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
194 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
198 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
202 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
207 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
211 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
215 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
219 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
223 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1

Input Set : **A:\EP.txt**
Output Set: **N:\CRF3\03212002\J070387.raw**

:227 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
:231 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
:236 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
:240 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
:1070 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
:332 Repeated in SeqNo=2
:1523 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5
:1523 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:5
:1523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
:1536 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:6
:1536 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6
:1536 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6

```
1280 Asp Asp Thr Met Arg Thr Leu Leu Asp Gly Gln Ala Pro Gly His Val
1281      2130              2135              2140
1283 Leu Glu Ile Gly Thr Gly Ser Gly Met Val Leu Phe Asn Leu Gly Ala
1284 145             2150              2155              2160
1286 Gly Leu Gln Ser Tyr Val Gly Leu Glu Pro Ser Arg Ser Ala Ala Thr
1287              2165              2170              2175
1289 Phe Val Thr Lys Ala Ile Asn Ser Thr Pro Ala Leu Ala Gly Lys Ala
1290              2180              2185              2190
1292 Glu Val His Val Gly Thr Ala Thr Asp Ile Asn Arg Leu Arg Gly Leu
1293         2195              2200              2205
1295 Arg Pro Asp Leu Val Val Leu Asn Ser Val Val Gln Tyr Phe Pro Thr
1296     2210              2215              2220
1298 Pro Glu Tyr Leu Leu Glu Val Val Glu Ser Leu Val Arg Ile Pro Gly
1299 225             2230              2235              2240
1301 Val Lys Arg Val Val Phe Gly Asp Ile Arg Ser His Ala Thr Asn Arg
1302              2245              2250              2255
1304 His Phe Leu Ala Ala Arg Ala Leu His Ser Leu Gly Ser Lys Ala Thr
1305              2260              2265              2270
1307 Lys Asp Ala Ile Arg Gln Lys Met Thr Glu Met Glu Glu Arg Glu Glu
1308         2275              2280              2285
1310 Glu Leu Leu Val Asp Pro Ala Phe Phe Thr Ala Leu Leu Gln Gly Gln
1311     2290              2295              2300
1313 Leu Ala Asp Arg Ile Lys His Val Glu Ile Leu Pro Lys Asn Met Arg
1314 305             2310              2315              2320
1316 Ala Thr Asn Glu Leu Ser Ala Tyr Arg Tyr Thr Ala Val Ile His Val
1317              2325              2330              2335
1319 Arg Gly Pro Glu Glu Gln Ser Arg Pro Val Tyr Pro Ile Gln Val Asn
1320              2340              2345              2350
1322 Asp Trp Ile Asp Phe Gln Ala Ser Arg Ile Asp Arg Arg Ala Leu Leu
1323         2355              2360              2365
1325 Arg Leu Leu Gln Arg Ser Ala Asp Ala Ala Thr Val Ala Val Ser Asn
1326     2370              2375              2380
1328 Ile Pro Tyr Ser Lys Thr Ile Val Glu Arg His Val Val Glu Ser Leu
1329 385             2390              2395              2400
1331 Asp Asn Asn Asn Arg Glu Asn Thr His Arg Ala Pro Asp Gly Ala Ala
1332              2405              2410         ᵧ    2415
1334 Trp Ile Ser Ala Val Arg Ser Lys Ala Glu Arg Cys Thr Ser Leu Ser
1335              2420              2425              2430
1338 Val Thr Asp Leu Val Gln Leu Gly Glu Glu Ala Gly Phe Arg Val Glu
1339         2435              2440              2445
1341 Val Ser Ala Ala Arg Gln Trp Ser Gln Ser Gly Ala Leu Asp Ala Val
1342     2450              2455              2460
1344 Phe His Arg Tyr Asn Leu Pro Thr Gln Ser Asn Ser Arg Val Leu Ile
1345 465             2470              2475              2480
1347 Gln Phe Pro Thr Glu Asp Gly Gln Thr Arg Arg Ser Ala Thr Leu Thr
1348              2485              2490              2495
1350 Asn Arg Pro Leu Gln Arg Leu Gln Ser Arg Arg Phe Ala Ser Gln Ile
1351              2500              2505              2510
1353 Arg Glu Gln Leu Lys Ala Val Leu Pro Ser Tyr Met Ile Pro Ser Arg
```

Input Set : A:\EP.txt
Output Set: N:\CRF3\03212002\J070387.raw

```
     1130 Phe Ala Val Leu Leu Gly Ala Phe Arg Ala Thr His Tyr Arg Leu Thr
--> 1131 345          1350          1355          1360
     1133 Gly Ala Glu Asp Ser Ile Ile Gly Thr Pro Ile Ala Asn Arg Asn Arg
     1134          1365          1370          1375
     1136 Gln Glu Leu Glu Asn Met Ile Gly Phe Phe Val Asn Thr Gln Cys Met
     1137          1380          1385          1390
     1139 Arg Ile Thr Val Asp Gly Asp Asp Thr Phe Glu Ser Leu Val Arg Gln
     1140          1395          1400          1405
     1142 Val Arg Thr Thr Ala Thr Ala Ala Phe Glu His Gln Asp Val Pro Phe
     1143     1410          1415          1420
     1145 Glu Arg Val Val Thr Ala Leu Leu Pro Arg Ser Arg Asp Leu Ser Arg
--> 1146 425          1430          1435          1440
     1148 Asp Pro Leu Ala Gln Leu Thr Phe Ala Leu His Ser Gln Gln Asp Leu
     1149          1445          1450          1455
     1151 Gly Lys Phe Glu Leu Glu Gly Leu Val Ala Glu Pro Val Ser Asn Lys
     1152          1460          1465          1470
     1154 Val Tyr Thr Arg Phe Asp Val Glu Phe His Leu Phe Gln Glu Ala Gly
     1155     1475          1480          1485
     1157 Arg Leu Ser Gly Asn Val Ala Phe Ala Ala Asp Leu Phe Lys Pro Glu
     1158   1490          1495          1500
     1160 Thr Ile Ser Asn Val Val Ala Ile Phe Phe Gln Ile Leu Arg Gln Gly
 -> 1161 505          1510          1515          1520
     1164 Ile Arg Gln Pro Arg Thr Pro Ile Ala Val Leu Pro Leu Thr Asp Gly
     1165          1525          1530          1535
     1167 Leu Ala Asp Leu Arg Ala Met Gly Leu Leu Glu Ile Glu Lys Ala Glu
     1168          1540          1545          1550
     1170 Tyr Pro Arg Glu Ser Ser Val Val Asp Val Phe Arg Lys Gln Val Ala
     1171     1555          1560          1565
     1173 Ala His Pro His Ala Phe Ala Val Val Asp Ser Ala Ser Arg Leu Thr
     1174     1570          1575          1580
     1176 Tyr Ala Asp Leu Asp Arg Gln Ser Asp Gln Leu Ala Thr Trp Leu Gly
  -> 1177 585          1590          1595          1600
     1179 Arg Arg Asn Met Thr Ala Glu Thr Leu Val Gly Val Leu Ala Pro Arg
     1180          1605          1610          1615
     1182 Ser Cys Gln Thr Val Val Ala Ile Leu Gly Ile Leu Lys Ala Asn Leu
     1183          1620          1625          1630
     1185 Ala Tyr Leu Pro Leu Asp Val Asn Cys Pro Thr Ala Arg Leu Gln Thr
     1186     1635          1640          1645
     1188 Ile Leu Ser Thr Leu Asn Arg His Lys Leu Val Leu Leu Gly Ser Asn
     1189   1650          1655          1660
     1191 Ala Thr Thr Pro Asp Val Gln Ile Pro Asp Val Glu Leu Val Arg Ile
  -> 1192 665          1670          1675          1680
     1194 Ser Asp Ile Leu Asp Arg Pro Ile Asn Gly Gln Ala Lys Leu Asn Gly
     1195          1685          1690          1695
     1197 His Thr Lys Ser Asn Gly Tyr Ser Lys Pro Asn Gly Tyr Thr His Leu
     1198          1700          1705          1710
     1200 Lys Gly Tyr Ser Asn Leu Asn Gly Tyr Ser Lys Gln Asn Gly Tyr Ala
     1201     1715          1720          1725
     1203 Gln Leu Asn Gly His Arg Glu Arg Asn Asn Tyr Leu Asp Leu Asn Gly
```

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Input Set : **A:\EP.txt**
Output Set: **N:\CRF3\03212002\J070387.raw**

```
1204      1730              1735                1740
1206 His Ser Leu Leu Asn Gly Asn Ser Asp Ile Thr Thr Ser Gly Pro Ser
1207 745              1750                1755                1760
1209 Ala Thr Ser Leu Ala Tyr Val Ile Phe Thr Ser Gly Ser Thr Gly Lys
1210              1765                1770                1775
1212 Pro Lys Gly Val Met Val Glu His Arg Ser Ile Ile Arg Leu Ala Lys
1213         1780                1785                1790
1215 Lys Asn Arg Ile Ile Ser Arg Phe Pro Ser Val Ala Lys Val Ala His
1216      1795                1800                1805
1218 Leu Ser Asn Ile Ala Phe Asp Ala Ala Thr Trp Glu Met Phe Ala Ala
1219      1810                1815                1820
1222 Leu Leu Asn Gly Gly Thr Leu Val Cys Ile Asp Tyr Met Thr Thr Leu
1223 825              1830                1835                1840
1225 Asp Ser Lys Thr Leu Glu Ala Ala Phe Ala Arg Glu Gln Ile Asn Ala
1226              1845                1850                1855
1228 Ala Leu Leu Thr Pro Ala Leu Leu Lys Gln Cys Leu Ala Asn Ile Pro
1229         1860                1865                1870
1231 Thr Thr Leu Gly Arg Leu Ser Ala Leu Val Ile Gly Gly Asp Arg Leu
1232      1875                1880                1885
1234 Asp Gly Gln Asp Ala Ile Ala Ala His Ala Leu Val Gly Ala Gly Val
1235      1890                1895                1900
1237 Tyr Asn Ala Tyr Gly Pro Thr Glu Asn Gly Val Ile Ser Thr Ile Tyr
1238 905              1910                1915                1920
1240 Asn Ile Thr Lys Asn Asp Ser Phe Ile Asn Gly Val Pro Ile Gly Cys
1241         1925                1930                1935
1243 Ala Ile Ser Asn Ser Gly Ala Tyr Ile Thr Asp Pro Asp Gln Gln Leu
1244         1940                1945                1950
1246 Val Pro Pro Gly Val Met Gly Glu Leu Val Val Thr Gly Asp Gly Leu
1247      1955                1960                1965
1249 Ala Arg Gly Tyr Thr Asp Pro Ala Leu Asp Ala Gly Arg Phe Val Gln
1250      1970                1975                1980
1252 Ile Met Ile Asn Asp Lys Ala Val Arg Ala Tyr Arg Thr Gly Asp Arg
1253 985              1990                1995                2000
1255 Ala Arg Tyr Arg Val Gly Asp Gly Gln Ile Glu Phe Phe Gly Arg Met
1256              2005                2010                2015
1258 Asp Gln Gln Val Lys Ile Arg Gly His Arg Ile Glu Pro Ala Glu Val
1259         2020                2025                2030
1261 Glu Arg Ala Ile Leu Asp Gln Asp Ser Ala Arg Asp Ala Val Val Val
1262      2035                2040                2045
1264 Ile Arg His Gln Glu Gly Glu Glu Pro Glu Met Val Gly Phe Val Ala
1265      2050                2055                2060
1267 Thr His Gly Asp His Ser Ala Glu Gln Glu Glu Ala Asp Asp Gln Val
1268 065              2070                2075                2080
1270 Glu Gly Trp Lys Asp Phe Phe Glu Ser Asn Thr Tyr Ala Asp Met Asp
1271         2085                2090                2095
1273 Thr Ile Gly Gln Ser Ala Ile Gly Asn Asp Phe Thr Gly Trp Thr Ser
1274      2100                2105                2110
1276 Met Tyr Asp Gly Ser Glu Ile Asn Lys Ala Glu Met Gln Glu Trp Leu
1277      2115                2120                2125
```

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